

List of Standard Error Tables

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Table 1a. Standard errors on distribution of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Field of doctorate	Number	Percent
Total.....	2,712.3	N/A
Sciences.....	2,403.6	0.2
Computer and mathematical sciences.....	570.9	0.1
Computer/information sciences.....	321.7	0.1
Mathematical sciences.....	518.9	0.1
Biological and agricultural sciences.....	1,164.2	0.2
Agricultural/food sciences.....	489.8	0.1
Biological sciences.....	1,060.9	0.2
Environmental life sciences.....	274.7	0.0
Health sciences.....	308.7	0.1
Physical and related sciences.....	1,209.9	0.2
Chemistry except biochemistry.....	1,005.0	0.2
Earth/atmospheric/ocean sciences.....	363.6	0.1
Physics and astronomy.....	670.4	0.1
Social sciences.....	1,153.7	0.2
Economics.....	670.4	0.1
Political and related sciences.....	607.0	0.1
Sociology.....	494.2	0.1
Other social sciences.....	850.0	0.1
Psychology.....	1,048.6	0.2
Engineering.....	1,193.3	0.2
Aerospace/aeronautical engineering.....	350.8	0.1
Chemical engineering.....	603.4	0.1
Civil engineering.....	486.0	0.1
Electrical/computer engineering.....	615.3	0.1
Materials/metallurgical engineering.....	505.1	0.1
Mechanical engineering.....	529.0	0.1
Other engineering.....	832.7	0.1

KEY: N/A= Not applicable

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 2a. Standard errors on demographic characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Demographic characteristic	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number).....	2,712.3	321.7	518.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
Year of doctorate					Percent				
Pre-1960.....	0.1	S	0.6	0.2	S	0.4	0.3	0.3	0.3
1960-69.....	0.2	S	1.1	0.4	0.4	0.6	0.5	0.5	0.6
1970-79.....	0.2	S	1.2	0.4	0.8	0.5	0.9	0.7	0.7
1980-84.....	0.2	S	0.7	0.2	0.6	0.3	0.5	0.5	0.5
1985-89.....	0.2	2.3	0.6	0.3	0.6	0.4	0.5	0.5	0.4
1990-92.....	0.1	1.8	0.7	0.3	0.5	0.3	0.4	0.4	0.5
1993-94.....	0.1	1.8	0.6	0.3	0.6	0.3	0.4	0.3	0.4
1995-96.....	0.1	1.4	0.4	0.1	0.4	0.2	0.2	0.2	0.2
Sex									
Male.....	0.2	1.0	0.6	0.3	0.8	0.3	0.5	0.7	0.2
Female.....	0.2	1.0	0.6	0.3	0.8	0.3	0.5	0.7	0.2
Race/ethnicity ¹									
White.....	0.2	2.0	1.1	0.3	0.6	0.4	0.5	0.4	0.6
Black.....	0.1	S	S	0.1	S	0.1	0.3	0.2	0.2
Asian/Pacific Islander.....	0.2	2.1	1.0	0.3	0.5	0.4	0.4	0.2	0.6
Hispanic.....	0.1	S	S	0.1	S	0.2	0.3	0.2	0.2
American Indian/Alaskan Native.....	--	S	S	S	S	S	S	S	S
Age									
Under 35.....	0.2	2.7	0.8	0.3	0.5	0.4	0.4	0.4	0.5
35-39.....	0.2	2.6	0.8	0.3	0.7	0.5	0.5	0.5	0.5
40-44.....	0.2	2.4	0.9	0.5	1.0	0.4	0.7	0.7	0.4
45-49.....	0.2	2.2	1.0	0.4	0.9	0.4	0.7	0.6	0.6
50-54.....	0.2	S	1.2	0.4	1.0	0.5	0.8	0.6	0.6
55-59.....	0.2	S	1.0	0.4	0.8	0.5	0.8	0.5	0.6
60-64.....	0.2	S	1.0	0.3	0.6	0.4	0.5	0.5	0.5
65-75.....	0.2	S	0.8	0.4	0.5	0.5	0.7	0.4	0.4
Citizenship status									
U.S. citizen.....	0.2	2.2	0.8	0.3	0.4	0.4	0.4	0.2	0.5
Non-U.S. citizen.....	0.2	2.2	0.8	0.3	0.4	0.4	0.4	0.2	0.5
Permanent U.S. resident.....	0.7	3.0	2.9	1.6	3.5	1.5	2.7	3.2	1.2
Temporary U.S. resident.....	0.7	3.0	2.9	1.6	3.5	1.5	2.7	3.2	1.2

¹ Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Estimate is less than 0.5 percent and estimated weighted cases >=1,000.

S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 3a. Standard errors on demographic characteristics of doctoral scientists and engineers,
by years since doctorate: 1997**

April 2002

Demographic characteristic	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total (number).....	2,712.3	1,025.6	1,652.5	1,470.4	1,498.4
Sex			Percent		
Male.....	0.2	0.4	0.4	0.4	0.2
Female.....	0.2	0.4	0.4	0.4	0.2
Race/ethnicity ¹					
White.....	0.2	0.5	0.4	0.4	0.4
Black.....	0.1	0.2	0.2	0.2	0.1
Asian/Pacific Islander.....	0.2	0.5	0.4	0.4	0.3
Hispanic.....	0.1	0.2	0.2	0.1	0.2
American Indian/Alaskan Native.....	--	S	S	S	S
Citizenship status					
U.S. citizen.....	0.2	0.4	0.3	0.2	0.2
Non-U.S. citizen.....	0.2	0.4	0.3	0.2	0.2

¹ Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: -- = Estimate is less than 0.5 percent and estimated weighted cases >=1,000.

S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 4a. Standard errors on laborforce status of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment status	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number).....	2,712.3	570.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
	Percent							
Employed full-time ¹	0.2	0.8	0.4	0.8	0.6	0.8	0.6	0.6
Employed part-time ¹	0.2	0.6	0.3	0.6	0.4	0.5	0.6	0.3
Unemployed, seeking employment.....	0.1	S	0.1	S	0.2	S	S	S
Retired.....	0.1	0.5	0.3	0.5	0.4	0.6	0.3	0.5
Not employed, not seeking.....	0.1	S	0.2	S	0.2	0.3	0.3	0.2

¹ Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 5a. Standard errors on reason for not working as reported by doctoral scientists and engineers,
by age: 1997**

April 2002

Reasons for not working	All ages	Age 64 and under	Age 65 and above
Total not employed (number).....	1,010.6	822.7	800.9
		Percent	
Retired.....	0.7	1.6	0.6
On layoff.....	0.3	0.7	S
Student.....	0.3	0.6	S
Family responsibilities.....	0.5	1.0	S
Ill/disabled.....	0.5	0.8	S
Suitable job not available.....	0.5	1.1	S
No need or desire to work.....	0.6	1.0	0.6
Other reason.....	0.4	0.7	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 6a. Standard errors on reasons for working part-time as reported by
doctoral scientists and engineers, by age: 1997**

April 2002

Reason for working part-time	All ages	Age 64 and under	Age 65 and above
Total employed part-time (number).....	962.2	1,007.5	452.4
		Percent	
Retired or semi-retired.....	1.2	1.1	2.7
Student.....	0.4	0.5	S
Family responsibilities.....	1.1	1.3	S
Ill/disabled.....	0.5	0.6	S
Suitable full-time job not available.....	1.1	1.3	S
No need or desire for full-time work.....	1.2	1.5	2.4
Other reason.....	0.9	0.9	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 7a. Standard errors on employment status of doctoral scientists and engineers,
by field of doctorate and sex: 1997**

April 2002

Labor force status and sex	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total in labor force (number).....	2,792.7	577.0	1,206.0	280.9	1,131.5	1,256.5	1,021.0	1,318.8
					Percent			
Employed full-time ¹	0.2	0.6	0.3	0.6	0.5	0.5	0.6	0.4
Employed part-time ¹	0.2	0.6	0.3	0.6	0.4	0.5	0.6	0.4
Unemployed, seeking employment.....	0.1	S	0.1	S	0.2	S	S	S
Male (number).....	2,509.4	578.0	1,081.7	220.6	1,123.0	1,142.5	907.3	1,301.6
					Percent			
Employed full-time ¹	0.2	0.6	0.4	0.8	0.5	0.6	0.8	0.4
Employed part-time ¹	0.2	0.5	0.3	S	0.4	0.6	0.7	0.4
Unemployed, seeking employment.....	0.1	S	0.2	S	0.2	S	S	S
Female (number).....	1,131.9	179.5	478.6	208.8	325.9	410.5	690.1	199.6
					Percent			
Employed full-time ¹	0.5	2.4	0.6	1.0	1.2	1.1	1.1	1.5
Employed part-time ¹	0.5	S	0.6	S	1.1	1.1	1.1	S
Unemployed, seeking employment.....	0.1	S	S	S	S	S	S	S

¹ Includes those who held postdoctoral appointments.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 8a. Standard errors on employment sector of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employment sector	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Education institution.....	0.4	2.8	1.2	0.7	1.2	0.6	1.0	0.9	0.9
Private industry.....	0.4	3.0	1.2	0.6	1.1	0.8	0.8	1.0	1.1
Government.....	0.2	S	0.6	0.4	0.9	0.4	0.7	0.6	0.5
Self-employed or other.....	0.2	S	S	0.2	S	0.3	0.4	0.8	0.3

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 9a. Standard errors on employer characteristics of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Employer characteristic	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
Employer size					Percent			
Under 10 employees.....	0.2	0.5	0.3	0.8	0.4	0.6	0.8	0.6
10-24 employees.....	0.1	S	0.2	S	0.2	0.2	0.3	0.3
25-99 employees.....	0.1	0.6	0.2	S	0.4	0.4	0.4	0.3
100-499 employees.....	0.2	1.0	0.4	0.6	0.4	0.6	0.6	0.5
500-999 employees.....	0.1	0.5	0.3	S	0.3	0.6	0.4	0.3
1,000-4,999 employees.....	0.2	1.0	0.4	0.8	0.4	0.7	0.4	0.6
5,000 or more employees.....	0.4	1.3	0.6	1.3	0.7	1.1	0.8	0.9
Employer a new business within past 5 years?								
Yes.....	0.2	0.6	0.3	S	0.4	0.3	0.4	0.5
No.....	0.2	0.6	0.3	0.5	0.4	0.3	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 10a. Standard errors on relationship between work on principal job and doctoral degree as reported by doctoral scientists and engineers, by field of doctorate, 1997

April 2002

Relationship between principal job and doctoral degree	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Closely related.....	0.3	2.5	1.4	0.5	1.1	0.8	0.9	0.7	0.8
Somewhat related.....	0.3	2.3	1.2	0.5	1.0	0.7	0.9	0.7	0.7
Not related.....	0.2	S	0.9	0.3	S	0.4	0.5	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 11a. Standard errors on most important reason for doctoral scientists and engineers to be working outside field of doctoral degree: 1997

April 2002

Most important reason	All fields
Total working outside doctoral degree field (number).....	932.5
	Percent
Pay/promotion opportunities.....	0.9
Working conditions.....	0.6
Job location.....	0.5
Change in career or professional interest.....	1.2
Family-related reasons.....	0.5
Job in doctoral field not available.....	1.0
Other reason.....	0.8

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 12a. Standard errors on primary work activity of doctoral scientists and engineers,
by years since doctorate: 1997**

April 2002

Primary work activity	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number).....	2,748.1	803.6	1,624.9	1,604.5	1,505.5
			Percent		
Applied research.....	0.2	0.5	0.4	0.5	0.5
Basic research.....	0.3	0.5	0.4	0.4	0.5
Development.....	0.1	0.3	0.3	0.3	0.3
Design.....	0.1	0.2	0.2	0.2	0.2
Teaching.....	0.3	0.5	0.5	0.6	0.7
Management, sales, and administration ¹	0.3	0.4	0.4	0.5	0.7
Computer applications.....	0.1	0.4	0.3	0.3	0.3
Professional services.....	0.2	0.4	0.4	0.4	0.4
Other activity ²	0.2	0.3	0.2	0.3	0.4

¹ Category includes: accounting, finance, contracts; employee relations including recruiting, personnel, development, and training; managing, supervising; sales, purchasing, marketing, customer service, public relations; and quality or productivity management.

² Category includes: production operations, maintenance, and other activity.

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 13a. Standard errors on similarity between work and expectations of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Level of similarity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very similar to expectation.....	0.3	2.8	1.5	0.6	1.3	0.7	1.0	0.9	0.9
Somewhat similar to expectation.....	0.3	3.0	1.4	0.4	1.2	0.6	0.9	0.7	0.9
Not very similar to expectation.....	0.3	S	1.3	0.5	0.9	0.7	0.8	0.6	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how similar the work during a typical week on a primary job is to what they expected to be doing at the time they completed a doctoral degree. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 14a. Standard errors on types of alternative or temporary work arrangements by doctoral scientists and engineers, by sex: 1997

April 2002

Type of work arrangement	Total	Sex	
		Male	Female
Total employed (number).....	2,748.1	2,725.8	1,095.9
		Percent	
Self-employed working as an independent contractor.....	0.2	0.2	0.4
Principal employer contracted out employee services to other organization(s).....	0.1	0.2	0.3
Working through a temporary help or employment agency.....	S	S	S
Working on an "as needed," "seasonal," or short-term basis.....	0.1	0.1	0.2
Job sharing.....	S	S	S
Working from home for 50 percent or more of work time.....	0.1	0.2	0.3
Something else.....	0.1	0.1	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 15a. Standard errors on reasons for working in alternative or temporary work arrangements
for doctoral scientists and engineers, by sex: 1997**

April 2002

Reasons	Total	Sex	
		Male	Female
Total working in alternative/temporary arrangement (number).....	1,298.7	1,103.4	622.2
		Percent	
Schedule flexibility.....	0.7	0.8	1.2
Only type of work found.....	0.5	0.7	0.7
To gain experience that might lead to a permanent job.....	0.3	0.4	S
Better pay.....	0.7	0.9	1.0
Family-related reason (e.g., children, spouse's job moved).....	0.4	0.4	1.1
In school or some type of training program.....	S	S	S
Enjoy being own boss.....	0.8	1.0	1.2
Employer changed status to temporary.....	S	S	S
Other reason.....	0.9	1.1	1.3

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 16a. Standard errors on employment benefits available to doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Type of benefit	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
Total receiving benefits (number).....	2,744.0	331.9	516.0	1,173.5	292.8	1,123.3	1,223.1	1,056.9	1,302.5
					Percent				
Health insurance that was at least partially paid by employer.....	0.2	0.7	0.7	0.3	0.5	0.4	0.5	0.6	0.5
A pension plan or a retirement plan to which employer contributed.....	0.2	2.0	0.8	0.4	0.8	0.5	0.5	0.7	0.7
A profit-sharing plan.....	0.3	2.8	1.2	0.4	1.0	0.7	0.7	0.8	0.8
Paid vacation, sick or personal days.....	0.3	1.8	1.4	0.5	0.9	0.5	0.7	0.8	0.6

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 17a. Standard errors on Federal Government support status of doctoral scientists and engineers,
by field of doctorate: 1997**

April 2002

Support status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Received government support.....	0.3	2.4	1.2	0.6	1.1	0.7	0.8	0.6	0.7
No government support.....	0.3	2.4	1.2	0.6	1.1	0.7	0.8	0.6	0.7

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government. Numbers are rounded to nearest hundred. Percents are rounded to the whole number. Details may not add to total because of rounding. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

**Table 18a. Standard errors on Federal Government support status of doctoral scientists and engineers,
by employment sector: 1997**

April 2002

Support status	Employment sector								
	All sectors	University and 4-year college	Other educational institution	Private for- profit	Self- employed	Private not-for- profit	Federal Government	State and local government	Other employer
Total employed (number).....	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
					Percent				
Received government support.....	0.3	0.4	1.2	0.5	0.9	1.3	S	1.7	S
No government support.....	0.3	0.4	1.2	0.5	0.9	1.3	0.1	1.7	4.1

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 19a. Standard errors on Federal agencies and departments supporting work of doctoral scientists and engineers: 1997

April 2002

Federal agency or department	Standard error
Total receiving Federal Government support (number).....	1,552.2
	Percent
Agency for International Development (AID).....	0.2
Agriculture Department.....	0.3
Commerce Department.....	0.2
Defense Department (DOD).....	0.6
Department of Education (includes NCES, OERI, FIPSE, FIRST).....	0.2
Energy Department (DOE).....	0.5
Environmental Protection Agency (EPA).....	0.3
Health and Human Services Department (excluding NIH).....	0.3
Interior Department.....	0.2
National Aeronautics and Space Administration (NASA).....	0.4
National Institutes of Health (NIH).....	0.5
National Science Foundation (NSF).....	0.6
Transportation Department (DOT).....	0.2
Other.....	0.3

NOTES: Data are based on questions that asked whether any of the work on primary job during the week of April 15 was supported by contracts or grants from the U.S. government and the agencies or departments that supported the work. Percents are rounded to the whole number. Details may not add to total because multiple answers were allowed. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

**Table 20a. Standard errors on academically employed doctoral scientists and engineers,
by field of doctorate and faculty rank: 1997**

April 2002

Academic rank	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number).....	2,226.4	260.5	451.7	1,207.8	254.2	768.6	1,109.3	749.5	951.9
					Percent				
Professor.....	0.4	S	1.8	0.7	1.4	1.2	1.1	1.4	1.6
Associate professor.....	0.3	4.6	1.6	0.6	1.4	0.9	1.0	1.1	1.3
Assistant professor.....	0.4	4.3	1.3	0.7	1.6	0.8	1.0	1.0	1.1
Instructor, lecturer, adjunct faculty.....	0.3	S	S	0.5	S	0.6	0.6	0.7	0.7
Not applicable at institution.....	0.1	S	S	0.2	S	0.4	S	S	S
Not applicable for position.....	0.3	S	S	0.6	S	0.9	0.5	1.0	0.9

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 21a. Standard errors on academically employed doctoral scientists and engineers, by years since doctorate, sex, and faculty rank, 1997

April 2002

Sex and academic rank	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number).....	2,226.4	863.7	1,247.8	1,173.7	1,126.7
			Percent		
Professor.....	0.4	S	0.5	1.0	0.9
Associate professor.....	0.3	0.4	0.8	0.9	0.6
Assistant professor.....	0.4	1.0	0.8	0.4	S
Instructor, lecturer, adjunct faculty.....	0.3	0.7	0.4	0.5	0.4
Not applicable at institution.....	0.1	S	0.2	0.4	0.3
Not applicable for position.....	0.3	0.9	0.5	0.5	0.5
Male (number).....	1,927.4	750.5	982.4	1,071.2	1,119.0
			Percent		
Professor.....	0.6	S	0.7	1.1	0.9
Associate professor.....	0.4	S	1.1	1.0	0.7
Assistant professor.....	0.4	1.2	1.0	0.4	S
Instructor, lecturer, adjunct faculty.....	0.3	0.8	0.5	0.5	0.4
Not applicable at institution.....	0.2	S	S	0.4	S
Not applicable for position.....	0.3	1.2	0.7	0.6	0.5
Female (number).....	935.5	387.0	641.0	472.6	260.8
			Percent		
Professor.....	0.6	S	0.7	1.9	2.4
Associate professor.....	0.6	S	1.2	1.8	S
Assistant professor.....	0.6	1.3	1.2	S	S
Instructor, lecturer, adjunct faculty.....	0.5	0.9	1.0	1.1	S
Not applicable at institution.....	0.3	S	S	S	S
Not applicable for position.....	0.6	1.3	1.0	1.2	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 22a. Standard errors on academically employed doctoral scientists and engineers,
by field of doctorate and tenure status: 1997**

April 2002

Tenure status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in academe (number).	2,226.4	260.5	451.7	1,207.8	254.2	768.6	1,109.3	749.5	951.9
					Percent				
Tenured.....	0.4	4.5	1.6	0.6	1.7	1.1	1.2	1.5	1.6
On tenure track.....	0.3	4.5	1.1	0.6	1.5	0.8	0.9	1.0	0.9
Not on tenure track.....	0.3	S	S	0.6	1.1	0.8	0.7	1.0	1.0
No tenure system at institution.....	0.2	S	S	0.4	S	0.5	0.6	0.8	S
No tenure for position.....	0.3	S	0.9	0.7	1.2	0.8	0.7	1.2	1.2

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes. Those on postdoctoral appointments are also included in this table, mostly under "not applicable for position". Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 23a. Standard errors on academically employed doctoral scientists and engineers,
by years since doctorate, sex, and tenure status: 1997**

April 2002

Sex and tenure of status	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed in academe (number).....	2,226.4	863.7	1,247.8	1,173.7	1,126.7
			Percent		
Tenured.....	0.4	0.3	0.8	0.8	0.8
On tenure track.....	0.3	0.9	0.7	0.4	S
Not on tenure track.....	0.3	0.8	0.5	0.5	0.5
No tenure system at institution.....	0.2	0.4	0.3	0.6	0.4
No tenure for position.....	0.3	0.8	0.6	0.6	0.7
Male (number).....	1,927.4	750.5	982.4	1,071.2	1,119.0
			Percent		
Tenured.....	0.5	S	1.1	0.9	0.8
On tenure track.....	0.4	1.1	0.8	0.4	S
Not on tenure track.....	0.3	1.1	0.6	0.5	0.5
No tenure system at institution.....	0.2	0.6	0.4	0.6	0.4
No tenure for position.....	0.3	1.1	0.8	0.7	0.7
Female (number).....	935.5	387.0	641.0	472.6	260.8
			Percent		
Tenured.....	0.7	S	1.2	1.6	2.5
On tenure track.....	0.6	1.2	1.2	S	S
Not on tenure track.....	0.6	1.1	1.1	1.3	S
No tenure system at institution.....	0.4	S	0.7	S	S
No tenure for position.....	0.7	1.2	1.1	1.2	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Academe includes 2-year and 4-year colleges, universities, medical schools, and university-affiliated research institutes.

Those on postdoctoral appointments are included in this table. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 24a. Standard errors on characteristics of doctoral scientists and engineers on postdoc,
by selected field of doctorate: 1997**

April 2002

Demographic characteristic	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number).....	539.7	409.2	449.0
		Percent	
Years since doctorate			
5 years or less.....	1.1	1.3	2.2
6-10 years.....	1.0	1.2	1.8
11-15 years.....	S	S	S
More than 15 years.....	S	S	S
Sex			
Male.....	1.1	1.5	1.8
Female.....	1.1	1.5	1.8
Race/ethnicity ¹			
White.....	1.1	1.6	1.8
Black.....	S	S	S
Asian/Pacific Islander.....	1.2	1.5	1.7
Hispanic.....	S	S	S
American Indian/Alaskan Native.....	S	S	S
Age			
34 or younger.....	1.5	1.8	2.4
35-44.....	1.3	1.7	2.0
45 or older.....	1.0	S	2.0
Citizenship status			
U.S. citizen.....	1.1	1.3	1.7
Non-U.S. citizen.....	1.1	1.3	1.7
Employment sector			
Educational institution.....	1.2	1.5	1.8
Business/industry.....	0.9	1.1	1.4
Other.....	0.9	1.2	1.3
Employment benefits			
Health benefits available.....	0.8	0.9	1.3
Pension benefits available.....	1.3	1.5	2.2

¹ Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

**Table 25a. Standard errors on primary reason for holding postdoc for doctoral scientists and engineers,
by selected field of doctorate: 1997**

April 2002

Reason	Field of doctorate		
	All fields	Biological and agricultural sciences	Other fields
Total postdocs (number).....	539.7	409.2	449.0
		Percent	
Primary reason for holding postdoc			
Additional training in field.....	1.2	1.5	1.8
Training out of field.....	0.9	1.2	1.6
Work with specific person or place.....	1.0	1.2	1.9
No other employment available.....	1.0	1.1	1.7
Postdoc generally expected for career in this field.....	1.1	1.5	1.6
Other reason.....	0.8	S	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Postdoc is a temporary position awarded in academe, industry or government primarily for gaining additional education and training in research. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 26a. Standard errors on second job status of doctoral scientists and engineers, by employment sector of principal job: 1997

October 2002

Second job status and occupation	Employment sector of principal job								
	All sectors	Universities and 4-year colleges	Other educational institutions	Private for-profit	Self-employed	Private not-for-profit	Federal Government	State and local government	Other employer
Total employed (number).....	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
	Percent								
Held second job.....	0.3	0.4	2.0	0.3	1.2	1.4	0.7	2.0	S
No second job.....	0.3	0.4	2.0	0.3	1.2	1.4	0.7	2.0	2.6
Total holding second job (number).....	1,393.4	897.2	332.7	545.8	315.7	396.5	303.6	364.4	S
Occupation of second job	Percent								
Science and engineering occupations.....	0.8	1.3	3.5	2.0	4.1	2.9	3.2	3.9	S
Computer and information scientists.....	0.4	0.5	S	1.1	S	S	S	S	S
Mathematical scientists.....	0.3	0.4	S	S	S	S	S	S	S
Life and related scientists.....	0.4	0.6	S	S	S	S	S	S	S
Physical and related scientists.....	0.5	0.7	S	1.0	S	S	S	S	S
Social and related scientists.....	0.7	1.0	S	1.3	S	S	S	S	S
Psychologists.....	0.8	0.9	3.3	1.7	S	3.1	S	4.6	S
Engineers.....	0.5	0.9	S	1.6	S	S	S	S	S
Non-science and engineering occupations.....	0.8	1.3	3.5	2.0	4.1	2.9	3.2	S	S
Top/mid-level managers, administrators, etc.....	0.5	0.7	S	S	S	S	S	S	S
Other non-S&E occupations.....	0.8	1.2	3.2	1.8	4.0	2.8	3.1	S	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 27a. Standard errors on relationship between work on second job and doctoral degree by doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Relationship	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total holding second job (number).....	1,403.6	291.6	598.6	204.9	494.3	568.9	860.8	459.5
				Percent				
Closely related.....	0.9	4.2	1.8	3.0	2.5	2.5	1.4	2.7
Somewhat related.....	0.8	3.1	1.7	S	2.3	2.4	1.3	2.2
Not related.....	0.5	3.1	1.6	S	2.5	1.4	0.8	1.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 28a. Standard errors on employment changes in doctoral scientists and engineers since 1995,
by field of doctorate: 1997**

April 2002

Employment change	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed in 1997 (number).....	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
				Percent				
Not employed in 1995.....	0.1	0.5	0.3	S	0.4	0.4	0.3	0.3
No change since 1995.....	0.2	1.1	1.5	1.1	0.7	0.8	0.7	0.7
Change in employer and job.....	0.2	0.8	0.4	0.8	0.5	0.5	0.4	0.5
Change in employer only.....	0.1	0.6	0.3	S	0.3	0.5	0.4	0.3
Change in job only.....	0.2	0.6	0.3	0.6	0.5	0.5	0.4	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 29a. Standard errors on reasons for changing employer and/or job since 1995 for doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Reasons	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total changing employer and/or job (number).....	1,599.3	365.5	684.3	180.7	726.2	555.9	592.4	687.5
	Percent							
Pay or promotion opportunities.....	0.8	2.9	1.4	2.7	1.8	2.5	1.8	1.8
Working conditions.....	0.6	2.3	1.2	2.5	1.4	2.3	2.0	1.4
Job location.....	0.6	2.1	1.2	S	1.3	2.0	1.8	1.2
Change in career.....	0.7	3.1	1.4	2.6	1.5	2.4	1.8	1.6
Family-related reasons.....	0.5	S	1.0	S	0.9	1.4	1.5	1.0
School-related reasons.....	0.4	S	0.7	S	0.7	1.3	0.9	0.9
Laid off/job terminated.....	0.6	2.6	1.0	S	1.3	1.6	1.7	1.1
Retired.....	0.3	S	S	S	0.8	S	S	0.9
Other reason.....	0.6	S	1.0	S	1.2	1.8	1.3	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 30a. Standard errors on overall job satisfaction level of doctoral scientists and engineers,
by field of doctorate, sex, and race/ethnicity: 1997**

April 2002

Level of overall job satisfaction, sex and race/ethnicity	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very satisfied.....	0.4	2.9	1.6	0.7	1.3	0.8	1.0	0.9	0.9
Somewhat satisfied.....	0.3	2.8	1.5	0.7	1.4	0.7	1.0	0.8	0.8
Very/somewhat dissatisfied.....	0.2	S	0.7	0.4	0.7	0.5	0.5	0.6	0.4
Sex									
Male (number).....	2,534.2	309.8	523.8	1,087.6	225.1	1,123.5	1,134.0	897.4	1,284.0
					Percent				
Very satisfied.....	0.4	3.4	1.7	0.8	1.8	0.9	1.3	1.2	0.9
Somewhat satisfied.....	0.4	3.3	1.7	0.7	1.9	0.8	1.2	1.1	0.9
Very/somewhat dissatisfied.....	0.2	S	0.7	0.4	S	0.5	0.7	0.7	0.4
Female (number).....	1,078.0	82.2	159.0	478.9	211.4	303.5	399.2	697.2	198.4
					Percent				
Very satisfied.....	0.6	S	3.5	1.1	1.7	1.9	1.6	1.2	2.7
Somewhat satisfied.....	0.6	S	3.2	1.1	1.8	1.9	1.5	1.2	2.8
Very/somewhat dissatisfied.....	0.4	S	S	0.6	0.9	1.2	0.9	0.8	S
Race/ethnicity ¹									
White (number).....	2,434.2	276.4	504.2	108.0	260.5	934.6	1,157.9	979.9	1,096.1
					Percent				
Very satisfied.....	0.4	3.4	1.7	0.7	1.4	0.9	1.0	1.0	1.1
Somewhat satisfied.....	0.3	3.3	1.7	0.7	1.5	0.9	1.0	0.8	1.1
Very/somewhat dissatisfied.....	0.2	S	1.0	0.4	0.7	0.5	0.7	0.6	0.7
Asian/Pacific Islander (number).....	1,056.3	196.1	285.5	480.5	106.4	493.1	318.9	136.9	681.1
					Percent				
Very satisfied.....	0.9	5.1	3.9	1.6	S	2.1	3.3	S	1.8
Somewhat satisfied.....	1.0	S	4.1	1.6	S	2.2	3.2	S	1.8
Very/somewhat dissatisfied.....	0.5	S	S	1.1	S	1.4	S	S	0.8
Other (number).....	591.3	87.0	110.4	217.6	80.5	300.4	336.6	270.1	230.1
					Percent				
Very satisfied.....	1.4	S	S	2.6	S	3.5	3.2	2.8	4.1
Somewhat satisfied.....	1.3	S	S	2.9	S	3.0	2.9	2.6	3.8
Very/somewhat dissatisfied.....	1.0	S	S	S	S	S	S	S	S

¹ Race/ethnicity shown for all doctorate recipients, including temporary residents.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 31a. Standard errors on job security concerns among doctoral scientists and engineers,
by field of doctorate: 1997**

April 2002

Level of concern	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	580.4	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
				Percent				
Concern about their own job loss								
Very concerned.....	0.1	0.5	0.3	S	0.4	0.4	0.4	0.4
Somewhat concerned.....	0.2	0.9	0.4	0.9	0.5	0.6	0.6	0.6
Not very concerned.....	0.3	1.1	0.4	1.1	0.6	0.8	0.7	0.7
Concern about other family members' job loss								
Very concerned.....	0.1	S	0.2	S	0.2	0.3	0.3	0.2
Somewhat concerned.....	0.2	0.8	0.3	0.7	0.4	0.5	0.5	0.5
Not very concerned.....	0.3	1.5	0.7	1.3	0.8	1.0	0.9	0.9
No other working adult in household.....	0.3	1.4	0.7	1.3	0.8	1.0	0.9	0.9

KEY: S = Suppressed due to too few cases in the estimates (fewer than 1,000 weighted cases).

NOTES: Data are based on a question that asked how concerned they are that a job loss will occur in the next 12 months. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 32a. Standard errors on reasons for losing job among doctoral scientists and engineers who had lost or left a job in the past, by field of doctorate: 1997

April 2002

Reason for job loss	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that lost or left a job (number).....	1,127.4	274.5	525.7	147.5	588.6	502.2	544.1	584.2
				Percent				
Self-operated business ended.....	0.6	S	S	S	S	1.6	1.6	S
Company, facility or agency closed down.....	0.9	3.7	1.8	S	1.7	2.4	2.4	2.1
Company facility or agency moved.....	0.5	S	1.0	S	1.3	S	S	1.3
Work, services, company, or facility was reorganized.....	0.9	4.5	1.8	3.5	2.1	2.8	2.4	2.6
Work, services, company or facility was taken over.....	0.7	S	1.2	S	1.8	S	1.4	2.1
Work, services, company, or facility had insufficient business..	1.0	4.1	1.7	S	2.1	2.9	2.4	2.4
Other reason.....	0.7	S	1.3	S	1.7	2.2	2.0	1.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 33a. Standard errors on length of time taken to find a new job and comparison of new to previous job among doctoral scientists and engineers who had lost or left their job in the past, by field of doctorate: 1997

April 2002

Length of time to find new job and comparison of new to previous job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total that had lost or left a job in the past and later took a new job (number).....	1,144.0	248.9	513.7	147.5	596.7	499.4	532.5	580.1
Time it took to find new job				Percent				
Less than 1 month.....	0.9	4.3	1.7	S	1.9	2.9	2.1	2.0
1-3 months.....	0.9	4.4	1.7	S	1.6	2.5	2.3	2.0
4-6 months.....	0.8	S	1.5	S	1.7	2.1	1.5	1.9
7-12 months.....	0.6	S	1.2	S	1.5	2.4	1.3	1.6
More than 1 year.....	0.5	S	0.9	S	1.0	S	S	1.2
Comparison of new to previous job in terms of Salary:								
Significantly more.....	0.8	4.2	1.6	S	1.6	3.0	2.0	2.2
About the same.....	0.8	4.0	1.6	S	1.9	3.1	2.2	2.3
Significantly less.....	0.6	S	1.4	S	1.7	2.7	1.7	1.8
Level of responsibility:								
Significantly more.....	1.0	S	1.5	S	2.1	2.4	2.4	2.3
About the same.....	1.0	4.5	1.5	S	2.0	2.9	2.3	2.5
Significantly less.....	0.6	S	1.4	S	1.4	1.9	1.6	1.8
Utilizing knowledge or skills:								
Significantly more.....	0.9	S	1.6	S	1.9	2.8	2.1	2.2
About the same.....	1.1	4.5	1.7	S	2.1	3.1	2.3	2.4
Significantly less.....	0.6	S	1.2	S	1.3	2.2	1.5	1.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 34a. Standard errors on likelihood of doctoral scientists and engineers in choosing the same field of study if given a chance, by field of doctorate and sex: 1997

April 2002

Likelihood of choosing the same field of study	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total employed (number).....	2,748.1	318.4	534.5	1,216.8	286.6	1,131.9	1,247.4	1,017.6	1,305.4
					Percent				
Very likely.....	0.4	2.3	1.5	0.6	1.2	0.8	1.1	0.9	0.9
Somewhat likely.....	0.3	2.0	1.4	0.6	1.2	0.7	1.1	0.9	0.9
Not at all likely.....	0.2	S	1.1	0.4	0.8	0.7	0.7	0.5	0.7
Male (number).....	2,534.2	309.8	523.8	1,087.6	225.1	1,123.5	1,134.0	897.4	1,284.0
					Percent				
Very likely.....	0.4	2.7	1.6	0.8	1.8	0.8	1.4	1.4	0.9
Somewhat likely.....	0.4	2.3	1.4	0.7	1.8	0.7	1.2	1.4	0.9
Not at all likely.....	0.3	S	1.2	0.5	1.4	0.7	1.0	0.9	0.7
Female (number).....	1,078.0	82.2	159.0	478.9	211.4	303.5	399.2	697.2	198.4
					Percent				
Very likely.....	0.7	3.6	3.8	1.1	1.9	2.1	1.6	1.2	2.5
Somewhat likely.....	0.7	S	3.9	1.0	1.6	2.1	1.3	1.2	2.5
Not at all likely.....	0.4	S	S	0.9	1.0	1.9	1.1	0.7	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 35a. Standard errors on professional society or association membership of doctoral scientists and engineers, by field of doctorate: 1997

April 2002

Number of memberships	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number).....	2,712.3	321.7	518.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
					Percent				
None.....	0.3	2.5	1.3	1.5	0.7	0.6	0.8	0.6	0.7
One.....	S	S	S	S	S	S	S	S	S
Two.....	0.3	2.5	1.2	0.4	1.1	0.6	0.9	0.7	0.7
Three.....	0.2	1.9	0.9	0.4	1.1	0.5	0.8	0.7	0.7
Four or more.....	0.3	S	S	0.5	1.2	0.5	0.9	0.9	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

**Table 36a. Standard errors on work-related training activities of doctoral scientists and engineers,
by field of doctorate: 1997**

April 2002

Training areas and reasons for taking training	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total (number).....	2,712.3	570.9	1,164.2	308.7	1,209.9	1,153.7	1,048.6	1,193.3
				Percent				
Taken work-related training.....	0.4	1.3	0.6	1.2	0.8	0.9	0.7	0.8
No work-related training.....	0.3	1.3	0.6	1.2	0.8	0.9	0.7	0.8
Total taking training (number).....	2,498.1	477.9	972.4	299.0	1,152.0	952.7	959.9	967.8
				Percent				
Type of training:								
Management/supervisor training.....	0.4	1.8	0.9	1.6	0.9	1.2	0.8	1.3
Training in occupational field.....	0.3	1.7	0.8	1.4	1.0	1.3	0.6	1.0
General professional training.....	0.4	1.2	0.8	1.1	0.9	1.1	0.7	1.1
Other work-related training.....	0.4	1.7	0.8	1.3	1.1	1.4	0.8	1.0
Most important reasons for taking training:								
To change occupational field.....	0.1	S	0.3	S	0.3	S	S	0.4
Further skills in occupational field.....	0.4	1.7	0.8	1.5	0.9	1.4	0.9	1.1
Licensure/certification.....	0.2	S	0.3	1.0	0.3	0.5	0.8	S
Increase opportunities.....	0.2	S	0.3	S	0.5	0.6	0.3	0.5
Learn skills for new position.....	0.2	1.1	0.5	S	0.6	0.9	0.4	0.6
Required or expected by employer.....	0.2	1.1	0.4	S	0.7	0.9	0.4	0.7
Other reasons.....	0.2	S	0.4	S	0.5	0.8	0.4	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients.

Table 37a. Standard errors on the type of employment wanted by recent doctoral recipients when they began doctoral program, by field of doctorate: 1997

April 2002

Type of employment wanted	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
Type of work wanted:	Percent								
Teaching.....	0.6	3.3	2.6	1.3	2.0	1.7	1.3	1.9	1.4
Research.....	0.4	2.3	2.1	0.7	1.4	0.8	1.6	1.6	0.9
Management/administration.....	0.5	S	S	0.9	2.0	1.2	1.5	1.1	1.3
Professional.....	0.5	3.1	S	1.0	2.2	1.2	1.7	1.6	1.1
Other.....	0.3	S	S	0.5	0.9	0.7	1.4	0.8	0.9
Employment setting most wanted:									
College or university.....	0.6	3.4	2.7	1.3	1.7	1.7	1.7	1.8	1.3
Business or industry.....	0.5	3.4	S	1.1	S	1.6	S	1.0	1.3
Other.....	0.2	S	S	0.8	1.5	0.8	1.5	1.7	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. 'Type of employment wanted' is based on two sets of questions asking respondents to think back to when they began their doctoral program, what they wanted to do and where they most wanted to work. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned science and engineering research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 38a. Standard errors on perception of job market at the time of doctoral degree completion, and benefit of doctoral degree by recent doctoral recipients by field of doctorate: 1997

April 2002

Perception and benefit	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	330.0	543.3	149.1	493.9	441.5	422.1	502.2
					Percent			
Job market for postdocs:								
Excellent.....	0.4	S	0.9	S	0.7	0.9	0.9	0.7
Good.....	0.6	1.8	1.2	1.9	1.6	1.3	2.0	1.2
Fair.....	0.7	1.9	1.1	2.0	1.6	2.1	2.0	1.3
Very poor.....	0.6	2.3	1.1	S	1.6	2.1	1.4	1.5
Don't know or not applicable.....	0.4	S	S	S	S	1.4	1.0	0.9
Job market for positions other than postdocs:								
Excellent.....	0.3	1.5	S	S	S	S	S	0.7
Good.....	0.5	2.1	1.0	2.2	1.1	1.4	1.7	1.3
Fair.....	0.7	2.4	1.4	2.0	1.6	2.2	2.1	1.5
Very poor.....	0.6	2.4	1.3	S	1.7	2.0	1.2	1.4
Don't know or not applicable.....	0.2	S	0.5	S	S	S	1.0	S
Doctoral degree helped:								
Begin first career.....	0.7	2.7	1.3	1.9	1.6	2.1	1.7	1.4
Further a career already started.....	0.5	2.3	1.2	2.1	1.4	1.6	1.6	1.1
Change careers.....	0.4	S	0.5	S	S	1.6	1.4	0.7
In ways not related to career.....	0.2	S	S	S	S	S	S	0.6

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Job market perception is based on a question that asked how they thought the job market was at the time of doctoral degree completion. Benefit of doctoral degree is based on a question that asked how they thought a doctoral degree would help their career. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned research doctorate from U.S. institutions and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 39a. Standard errors on career path job status of recent doctoral recipients, by field of doctorate: 1997

April 2002

Career path job status	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
Holding a job.....	0.6	2.6	2.7	1.0	1.9	1.3	1.4	1.3	1.0
Accepted but not begun job.....	0.2	S	S	0.5	S	S	S	S	S
Not holding, but seeking job.....	0.5	S	S	0.8	S	1.1	S	1.1	1.0
Not holding, not seeking job.....	0.4	S	S	0.7	S	1.0	1.1	0.8	0.7

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Data is based on questions that asked about the career job status since doctoral degree completion. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 40a. Standard errors on aspects of a career path job that were greatly or somewhat affected by completion of doctoral degree for recent doctoral recipients, by field of doctorate: 1997

April 2002

Aspect of career path job	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job before completion of doctoral degree (number).....	577.0	166.5	209.4	110.0	195.4	328.1	297.4	230.0
Aspects of career path job that were greatly or somewhat affected by doctoral degree:				Percent				
Salary level.....	1.4	5.3	3.0	3.5	4.8	4.0	2.8	3.3
Level of responsibility.....	1.4	5.3	3.6	3.2	5.0	3.7	3.1	3.0
Job security.....	1.4	5.3	3.8	3.0	4.2	3.6	3.0	3.1
Degree of interesting or rewarding work.....	1.5	5.1	3.8	3.5	4.5	4.0	3.8	2.6
Degree of technically demanding work.....	1.4	S	3.4	S	4.8	4.0	3.3	2.5
Management activities.....	1.6	S	3.9	S	S	3.2	3.3	3.0
Other.....	0.9	S	S	S	S	S	S	S

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 41a. Standard errors on most important resource used and length of time taken to find first career path job for recent doctoral recipients, by field of doctorate, 1997

April 2002

Resource and length of time	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients holding a career path job (number).....	1,103.1	311.6	467.1	150.0	447.7	378.8	420.8	444.0
Most important job search resource:					Percent			
Faculty or advisor.....	0.7	2.7	1.4	S	1.4	2.8	1.7	1.6
Informal channels through colleagues or friends.....	0.8	3.2	1.2	S	1.8	2.4	2.2	1.8
Professional meetings and/or journals.....	0.7	3.3	1.4	S	1.7	2.4	2.2	1.4
Other resource ¹	0.7	2.6	1.4	S	1.9	2.7	2.0	1.7
Length of time between completion of first doctoral degree and first career path job:								
Less than 1 month ²	0.8	3.3	1.4	2.9	2.1	2.7	2.4	2.0
1-6 months.....	0.8	3.6	1.4	S	1.8	2.9	2.4	1.5
7-12 months.....	0.5	S	0.8	S	1.2	S	S	1.0
More than 12 months.....	0.7	S	1.0	S	1.7	S	1.9	1.2

¹ 'Other resource' includes professional recruiter, college/department placement office, electronic postings, newspapers, direct contact with company, and other.

² Includes those who already held a career path job before completion of doctoral degree.

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 42a. Standard errors on factors that somewhat or greatly limited career path job search by recent doctoral recipients, by field of doctorate: 1997

April 2002

Factors limiting career path job search	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients seeking or holding a career path job (number).....	1,118.2	329.9	526.8	159.7	512.0	418.1	414.3	488.8
Factors that somewhat or greatly limited career path job search:	Percent							
Family responsibilities.....	0.7	3.2	1.5	2.9	1.9	2.0	2.3	1.6
Spouse's career or employment.....	0.6	2.5	1.2	2.7	1.6	2.2	2.2	1.6
Debt from undergraduate or graduate degree(s)....	0.6	S	0.8	S	1.3	1.7	2.0	1.1
Desire to not relocate.....	0.7	3.2	1.1	2.6	1.6	2.1	2.6	1.5
Suitable job not available.....	0.7	3.1	1.5	2.8	1.8	2.4	2.1	1.5
Other.....	0.4	S	0.8	S	1.3	S	1.6	0.9

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

**Table 43a. Standard errors on primary reason for working in a career path job outside doctoral degree field
by recent doctoral recipients: 1997**

April 2002

Primary reason	All fields
Total recent doctoral recipients reporting career path job is not related to the doctoral field (number).....	160.1
	Percent
Pay or promotion opportunities.....	4.3
Working conditions.....	1.4
Job location.....	4.3
Change in career or professional interests.....	4.5
Family-related reasons.....	1.3
Job in doctoral field not available.....	6.4
Other.....	2.2

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 44a. Standard errors on areas of training in which recent doctoral recipients thought their doctoral program had somewhat or very adequately prepared them for a career, by field of doctorate: 1997

April 2002

Areas of doctoral training	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
General problem solving skills.....	0.2	0.6	2.1	0.3	0.7	0.3	0.9	0.8	0.3
Subject matter knowledge.....	0.2	1.2	1.7	0.4	0.7	0.6	0.6	0.5	0.4
Oral communication skills.....	0.4	2.8	3.1	0.7	1.1	1.1	1.2	1.0	0.9
Teaching skills.....	0.6	4.0	2.9	1.2	1.7	1.6	1.8	1.5	1.3
Collaboration and teamwork skills.....	0.5	3.1	4.1	1.0	1.4	1.3	1.6	1.4	1.0
Quantitative skills.....	0.4	1.7	2.6	0.5	1.0	0.7	1.6	1.0	0.5
Writing skills.....	0.4	1.9	3.1	0.7	0.8	1.1	0.9	0.7	0.6
Computer skills.....	0.4	0.7	3.4	0.9	1.3	0.9	1.6	1.8	0.6
Research integrity/ethics.....	0.4	2.2	3.0	0.8	0.9	1.1	1.0	0.6	0.6
Establishing contacts with colleagues in field.....	0.5	2.1	2.7	0.9	1.4	1.4	1.4	1.5	1.0
Management or administrative skills.....	0.6	3.8	2.8	1.2	2.1	1.4	1.8	1.4	1.4

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth.

Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 45a. Standard errors on first area of the doctoral program in which recent doctoral recipients would have liked more training by field of doctorate: 1997

April 2002

Doctoral program area	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number).....	1,075.8	33.0	543.3	149.1	493.9	441.5	422.1	502.2
				Percent				
Additional training desired (number).....	981.1	300.1	458.3	165.5	480.5	375.1	417.4	428.5
General problem solving skills.....	0.2	S	0.5	S	S	S	S	S
Subject matter knowledge.....	0.4	S	0.6	S	0.9	1.4	1.2	0.8
Oral communication skills.....	0.5	S	0.8	S	1.3	S	S	1.1
Teaching skills.....	0.5	S	1.1	S	1.1	1.6	1.4	1.0
Collaboration and teamwork skills.....	0.4	S	0.9	S	0.9	S	S	1.1
Quantitative skills.....	0.3	S	0.6	S	S	1.7	S	S
Writing skills.....	0.4	S	0.8	S	1.2	S	S	0.9
Computer skills.....	0.5	S	0.8	S	1.0	1.7	1.2	0.9
Research integrity/ethics.....	0.1	S	S	S	S	S	S	S
Establishing contacts with colleagues in field.....	0.5	2.2	0.8	S	1.3	1.9	1.6	1.0
Management or administrative skills.....	0.6	S	1.1	S	1.6	S	2.0	1.4

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996.

Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 46a. Standard errors on level of overall satisfaction with doctoral program by recent doctoral recipients, by field of doctorate: 1997

April 2002

Level of overall satisfaction with doctoral program	Field of doctorate								
	All fields	Computer and information sciences	Mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total recent doctoral recipients (number)....	1,075.8	233.4	256.6	543.3	149.1	493.9	441.5	422.1	502.2
					Percent				
Very satisfied.....	0.7	4.3	3.6	1.2	1.9	1.8	2.2	1.7	1.5
Somewhat satisfied.....	0.6	4.1	3.4	1.0	1.9	1.7	1.8	1.7	1.4
Very or somewhat dissatisfied.....	0.3	S	S	0.7	S	0.9	1.2	0.9	0.5

KEY: S = Suppressed due to too few cases in the estimate (fewer than 1,000 weighted cases).

NOTES: 'Recent doctoral recipients' are those who reported having received their doctorate between June of 1990 and 1996. Standard errors are rounded to the nearest tenth. Survey of Doctorate Recipients includes persons who had earned a science and engineering research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 47a. Standard errors on retired doctoral scientists and engineers, by field of doctorate and age: 1997

October 2002

Age	Field of doctorate							
	All fields	Computer and mathematical sciences	Biological and agricultural sciences	Health sciences	Physical and related sciences	Social sciences	Psychology	Engineering
Total retired (number).....	863	188	452	98	556	471	267	451
Age group					Percent			
Under 65.....	1	S	2	S	2	3	3	4
65-75.....	1	6	2	S	2	3	3	4

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 48a. Standard errors on principal occupation of doctoral scientists and engineers, by employment sector: 1997

October 2002

Principal occupation	Employment sector								
	Total	University and 4-year college	Other educational institution	Private for-profit company	Self-employed	Private not-for-profit organization	Federal government	State/local government	Other employer
Total employed (number).....	2,748.1	2,235.2	578.8	2,194.9	878.6	847.4	1,047.5	651.4	194.7
					Percent				
Science and engineering occupations.....	0.3	0.3	1.7	0.5	1.5	1.5	1.1	2.0	6.3
Computer and information scientists.....	0.1	0.2	S	0.4	S	S	0.5	S	S
Mathematical scientists.....	0.1	0.2	S	0.1	S	S	0.5	S	S
Life and related scientists.....	0.2	0.5	1.5	0.3	0.7	0.9	0.9	1.3	S
Physical and related scientists.....	0.2	0.3	1.5	0.5	0.7	0.7	0.9	1.3	S
Social and related scientists.....	0.2	0.5	1.5	0.1	S	0.7	0.7	S	S
Psychologists.....	0.2	0.1	1.8	0.3	1.8	1.1	0.6	1.9	S
Engineers.....	0.2	0.3	S	0.5	0.8	0.8	0.9	S	S
Non-science and engineering occupations.....	0.3	0.3	1.7	0.5	1.5	1.5	1.1	2.0	S
Top/mid-level managers, administrators, etc.....	0.3	0.3	1.4	0.5	1.0	1.4	0.8	1.8	S
Other non-S&E occupations.....	0.2	0.3	1.7	0.4	1.3	1.1	0.6	1.3	S

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients

Table 49a. Standard errors on principal occupation of doctoral scientistss and engineers, by years since doctorate: 1997

October 2002

Principal occupation	Years since doctorate				
	Total	5 years or less	6-15 years	16-25 years	More than 25 years
Total employed (number).....	2,748.1	1,034.4	1,656.0	1,524.7	1,385.2
			Percent		
Science and engineering occupations.....	0.3	0.5	0.4	0.7	0.9
Computer and information scientists.....	0.1	0.4	0.2	0.3	0.3
Mathematical scientists.....	0.1	0.2	0.2	0.2	0.3
Life and related scientists.....	0.2	0.5	0.4	0.4	0.6
Physical and related scientists.....	0.2	0.4	0.3	0.4	0.5
Social and related scientists.....	0.2	0.4	0.4	0.5	0.5
Psychologists.....	0.2	0.4	0.4	0.4	0.3
Engineers.....	0.2	0.5	0.3	0.4	0.6
Non-science and engineering occupations.....	0.3	0.5	0.4	0.7	0.9
Top/mid-level managers, administrators, etc.....	0.3	0.3	0.4	0.6	0.7
Other non-S&E occupations.....	0.2	0.4	0.4	0.5	0.5

KEY: S = Suppressed due to too few cases (fewer than 1,000 weighted cases).

NOTES: Standard errors are rounded to nearest tenth. Survey of Doctorate Recipients includes persons who had earned a research doctorate from an U.S. institution and resided in U.S. as of April 1997.

SOURCE: National Science Foundation/Division of Science Resources Statistics, 1997 Survey of Doctorate Recipients